# **Custom Systems Model 9482 Rack Mounted Vacuum Pump**

08/2024

# **Applications**

- Vacuum supply
- Industry (laboratory, workshop and production)
- Research and development laboratory
- End of line testing

# **Special features**

- Oil free vacuum pump
- Automated Gast 1VAF-10-M100X vacuum pump
- Automatic and manual control



Model 9482 - Rack Mounted Vacuum Pump

## **Description**

#### Design:

The Model 9482 vacuum system utilizes a Gast 1VAF-10-M100X piston pump for consistent vacuum performance. The unit is mounted in an industry standard 19" rack mount chassis. A gauge and HOA switch comes standard on the front panel. There are two I/O ports (MC 1.5/2-STF-3.81) located on the rear. They allow the automatic functionality to be controlled through either powered or passive means. Additionally, an automatic pressure relief valve is also included on the vacuum supply line.

## **Functionality**

The Model 9482 is commonly used as part of a larger rack mounted system to provide vacuum pressure. It can also be used as a standalone unit where a vacuum is needed. The unit has excellent performance down to approximately 1 psi absolute.

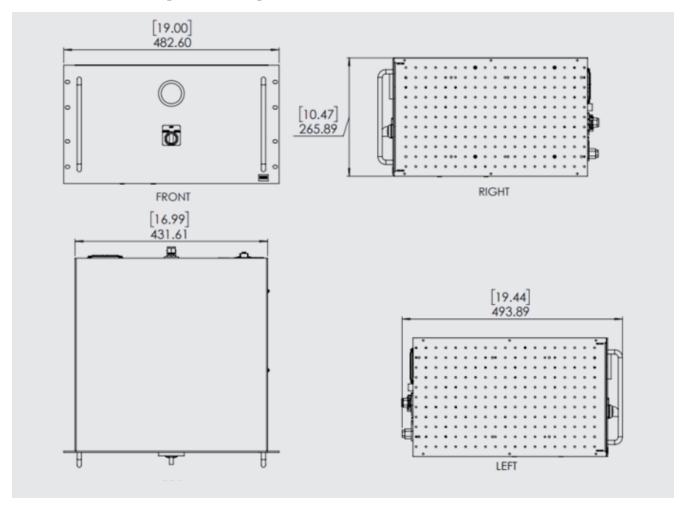
Wika data sheet  $\cdot$  08/2024 Page 1 of 6



# Specifications Model 9482

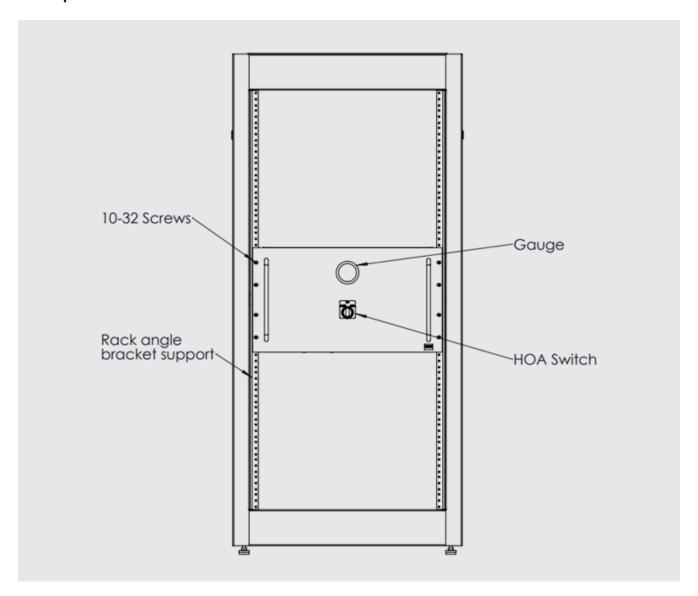
Basic instrument - Model 9482	
Ambient operating temperature	5 to 40 ° C
Storage temperature	0 to 40 °C
Supply power	100-120VAC 60Hz
Rated current consumption	3.5 amps in rush / 3 amps
Noise level	≈70 dB(A)
Fittings	3/8" stainless Tube vacuum port
Relief valve	Relief valve is mounted internally.
Dimensions	L 19.44" [49.39cm] x W 19" [48.26cm] x H 10.47" [265.89mm]

# **Dimensions: inches [millimeters]**



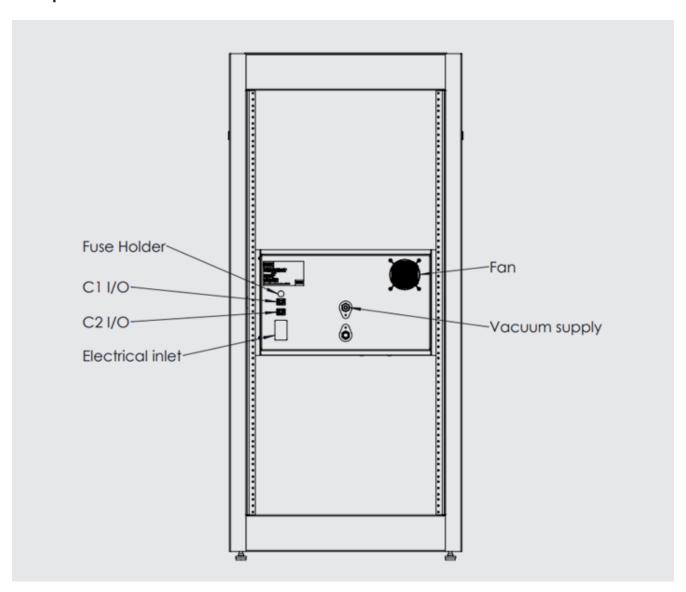
Wika data sheet · 08/2024 Page 2 of 6

# Front panel features



Wika data sheet · 08/2024 Page 3 of 6

# Rear panel features



Wika data sheet · 08/2024 Page 4 of 6

## Theory of operation

As previously stated, the Model 9482 is a rack mounted vacuum pump. When operating, gases are pumped from the 3/8 tube connector vacuum supply indicated on the rear panel layout. These gases are then expelled through the rear panel vent. When turned off, an internal N.O. solenoid valve opens and atmospheric air enters through the solenoid. The vacuum pressure of the system can be observed from the front-facing gauge. There are additional functionality and safety features included. An internal pressure relief valve is in line with the vacuum supply to protect from unintentional return pressure. Two I/O points facilitate automatic operation, for more information refer to the section below.

#### **HOA** switch operation

#### Hand (H):

When the HOA switch is flipped to the Hand(H) state the machine will turn on. The machine will remain on until the state of the switch is changed.

#### Off (O):

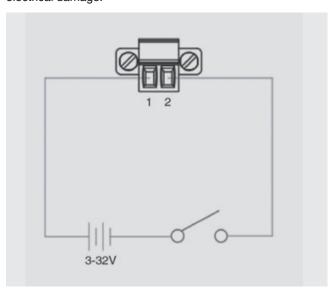
When the HOA switch is flipped to the Off(O) state the machine will turn off. The internal N.O. solenoid will pull in atmosphere.

#### Automatic(A):

When the HOA switch is flipped to the Automatic(A) state the machine can be controlled by I/O input. Depending on the I/O input, the machine will either turn on or off. When not in the Automatic(A) state all I/O input will be ignored.

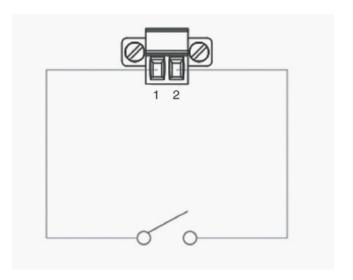
#### C1(I/O):

The C1 I/O port is intended to be used with an incoming DC signal within the range of 3-32 volts. A high signal will cause the machine to turn on and a low signal will cause it to turn off. This allows for automated computer control. Directly shorting C1 to ground is not recommended and may cause electrical damage.



#### C2(I/O):

The C2 I/O port is intended to be used as a passive interrupt system. When there is a short between the C2's terminals the machine will turn on and when there is a disconnect the machine will turn off. This allows for the wiring of an external passive switch. Operating both C1 and C2 simultaneously is not advised.



Wika data sheet · 08/2024 Page 5 of 6

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Page 6 of 6 Wika data sheet · 08/2024



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